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MATING SCHEME FOR PRODUCTION OF H α A REPLACEMENT MICE

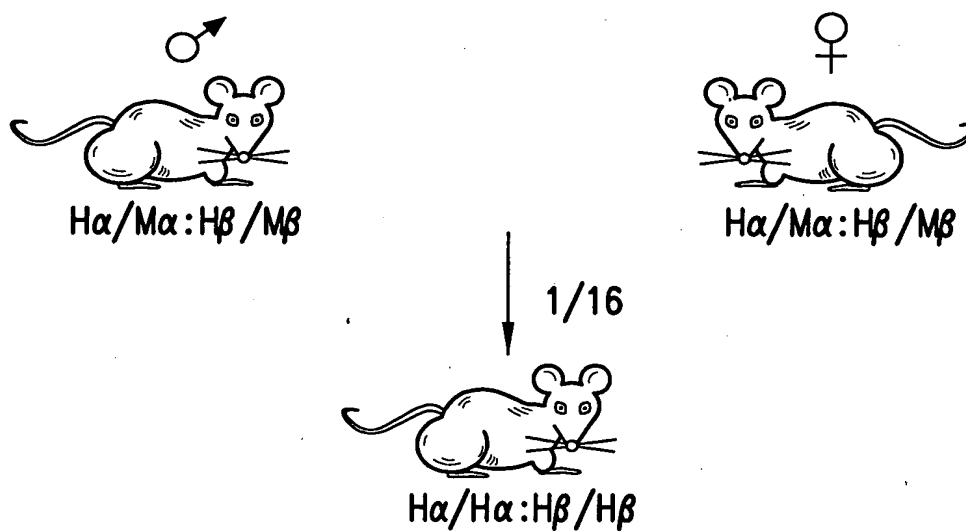
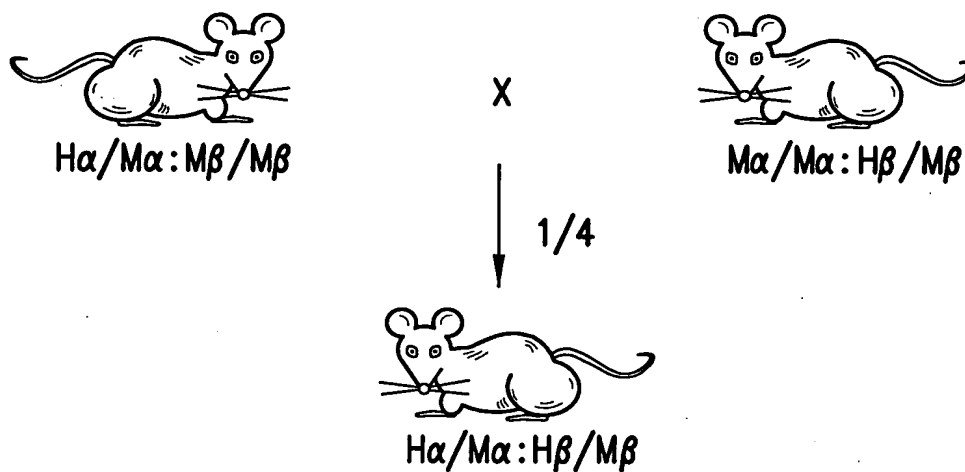


FIG. 1

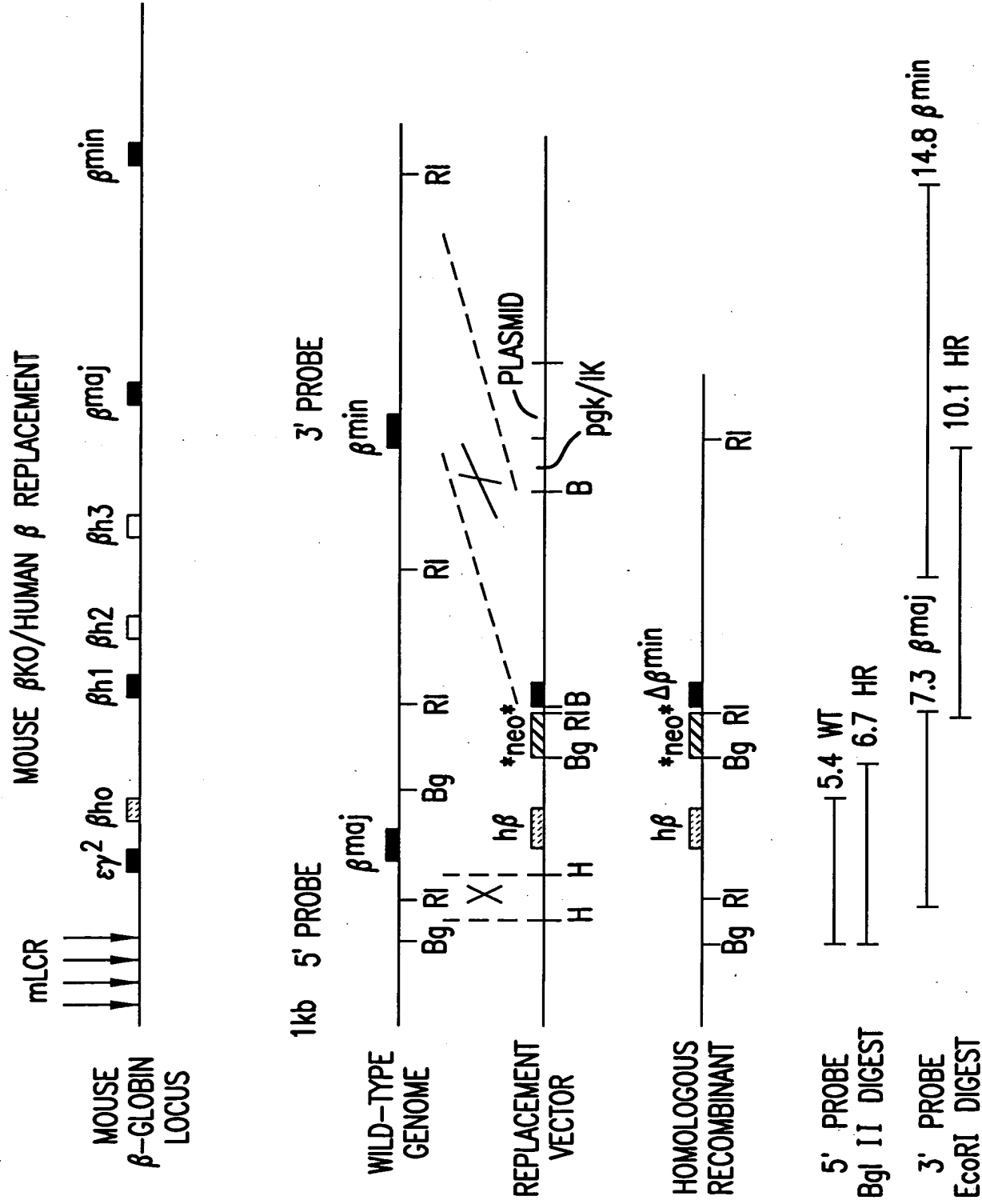


FIG.2

HUMAN REPLACEMENT OF THE MOUSE β -GLOBIN LOCUS

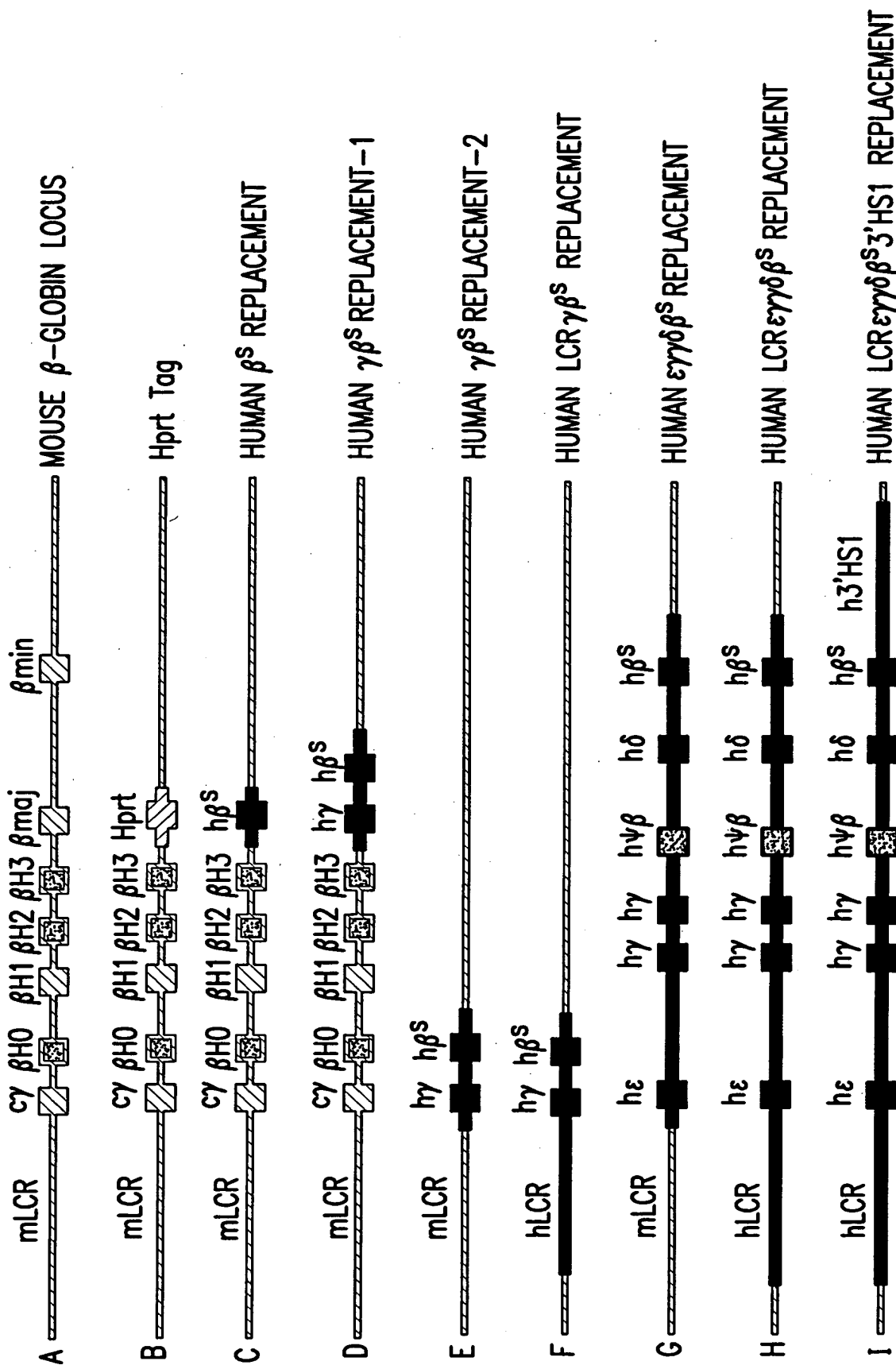


FIG.3

HUMAN REPLACEMENT OF THE MOUSE α -GLOBIN LOCUS

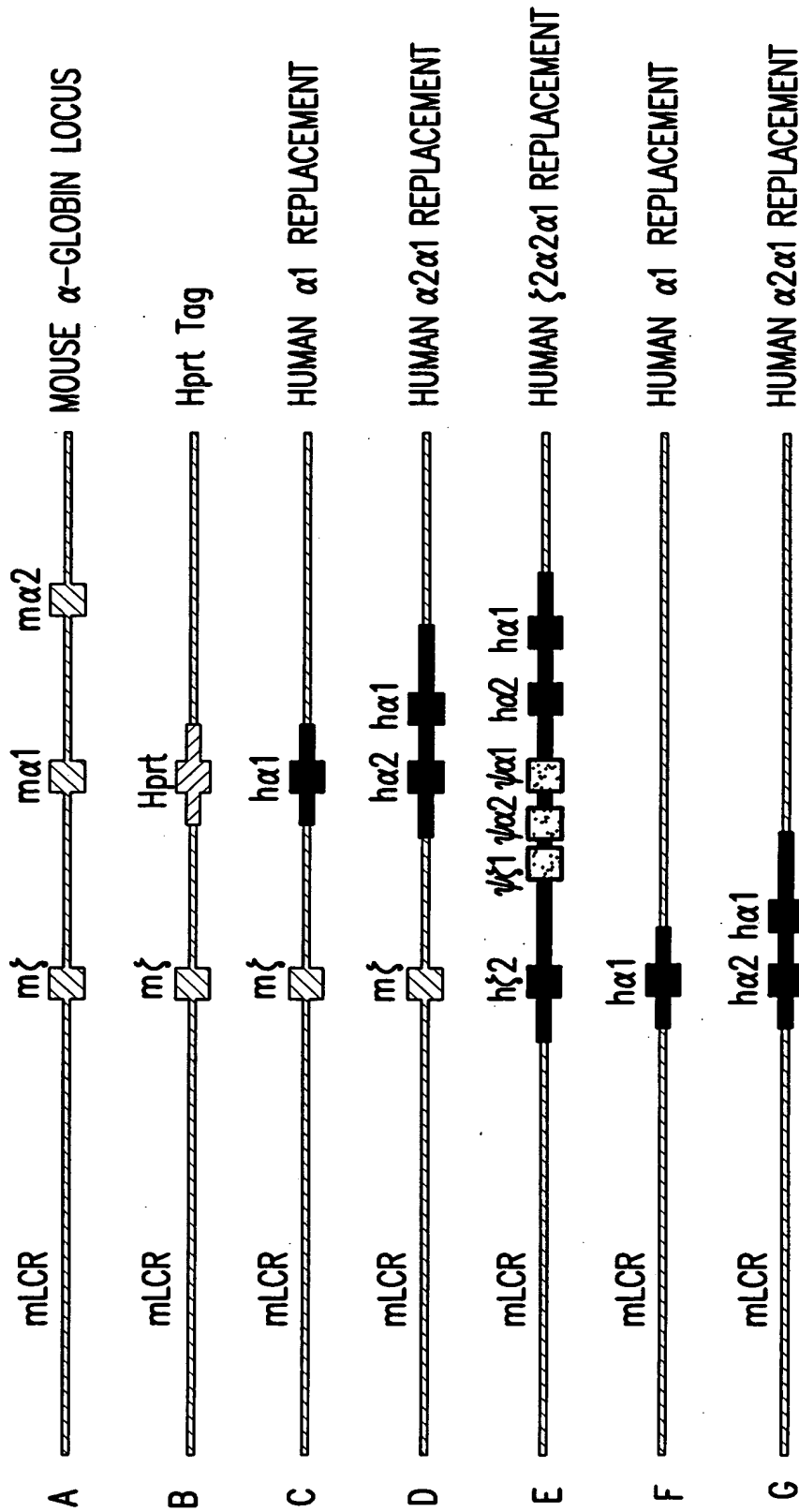


FIG.4

PRODUCTION OF TRANSGENIC HbF → HbA MICE
 (DOUBLY HOMOZYGOUS FOR MOUSE α -GLOBIN AND β -GLOBIN DELETIONS)

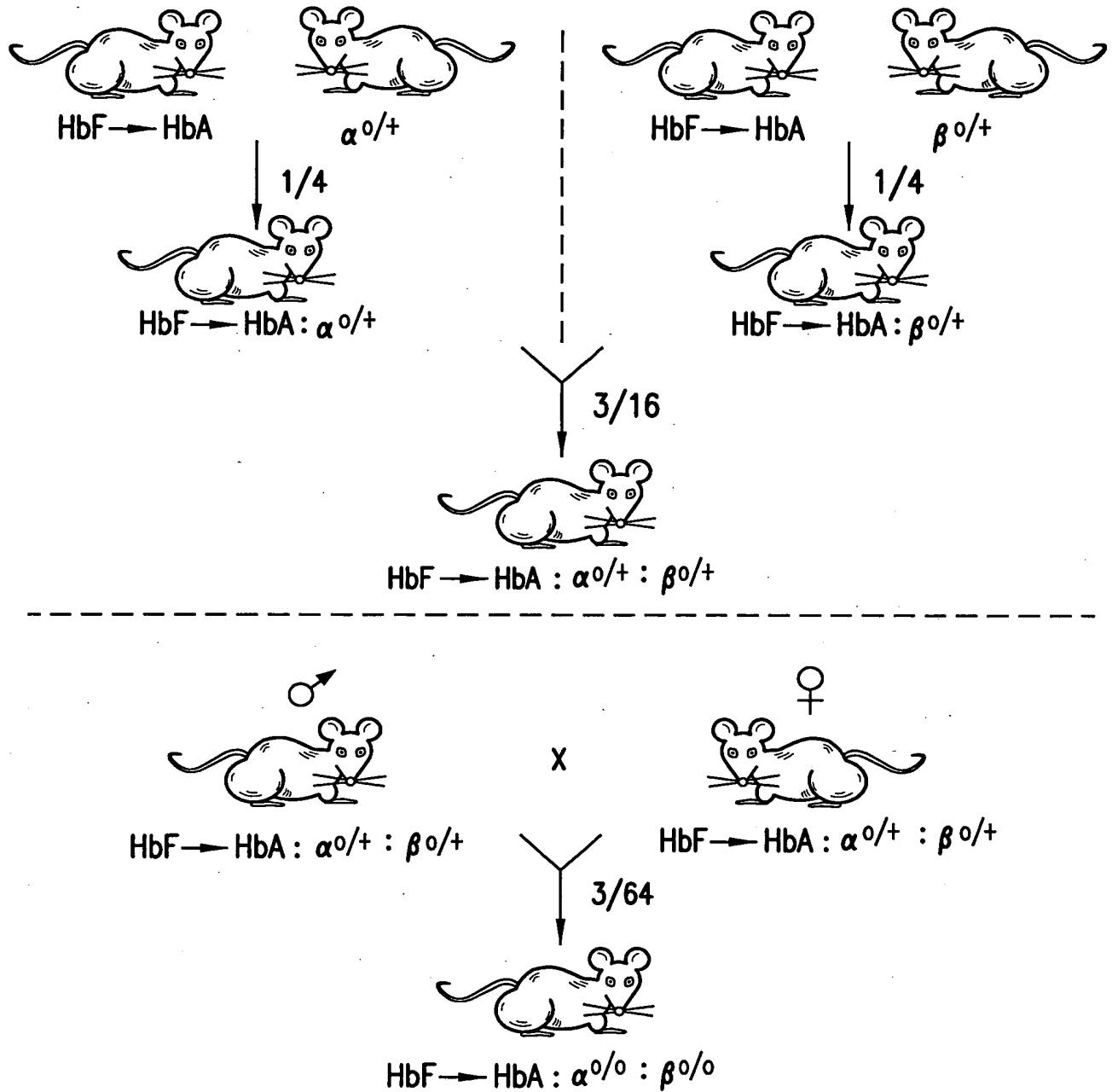
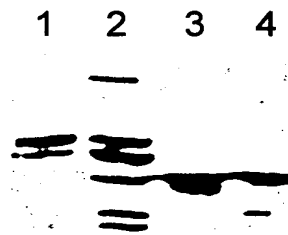


FIG.5

Isoelectric Focusing Gel Of
Transgenic Mouse Hemolysates



1. Mouse Control
2. HbF \rightarrow HbA : $\alpha^{+/+}$: $\beta^{+/+}$ Mouse
3. HbF \rightarrow HbA : $\alpha^{0/0}$: $\beta^{0/0}$ Mouse
4. Human AA Control

FIG.6

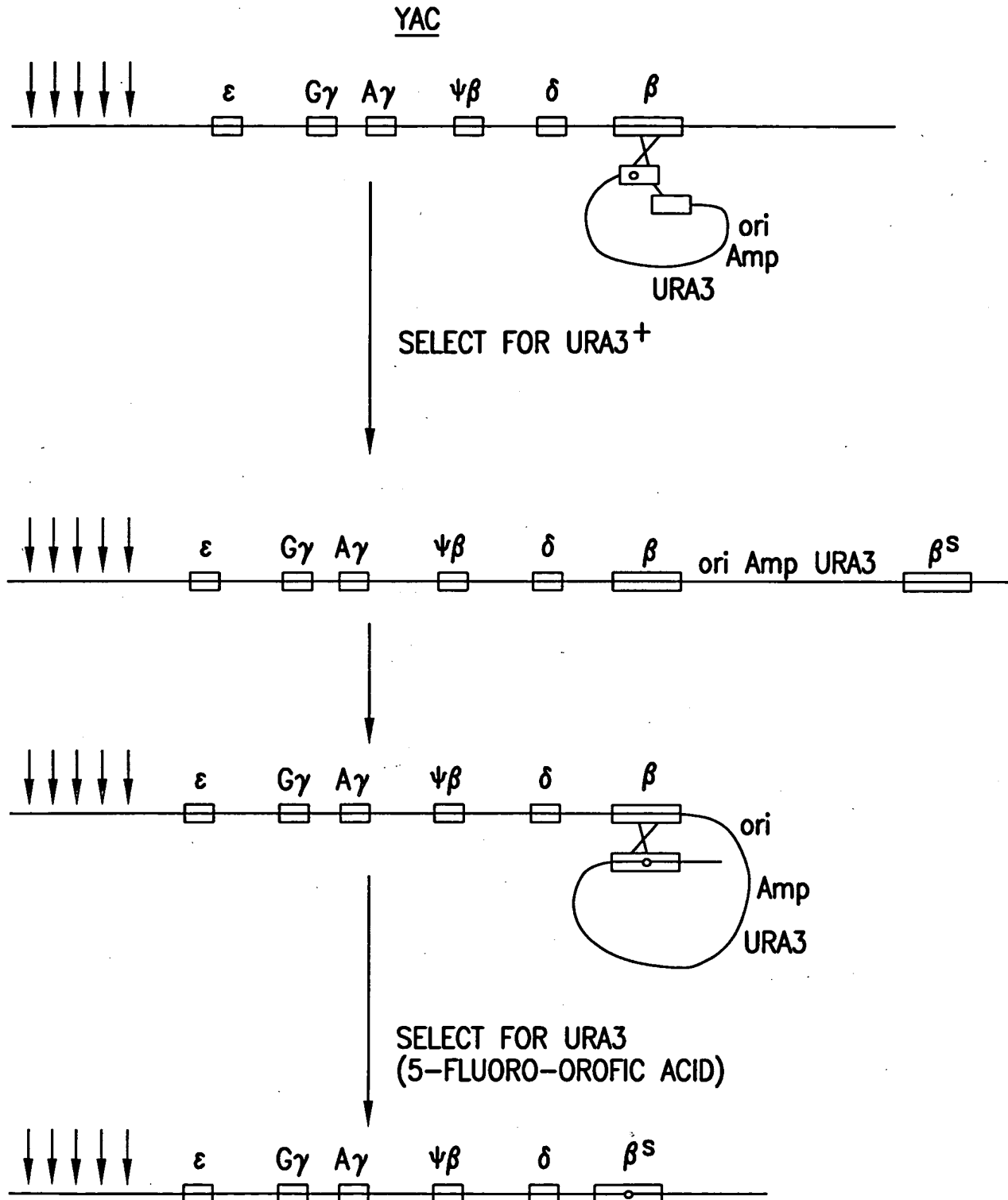


FIG.7

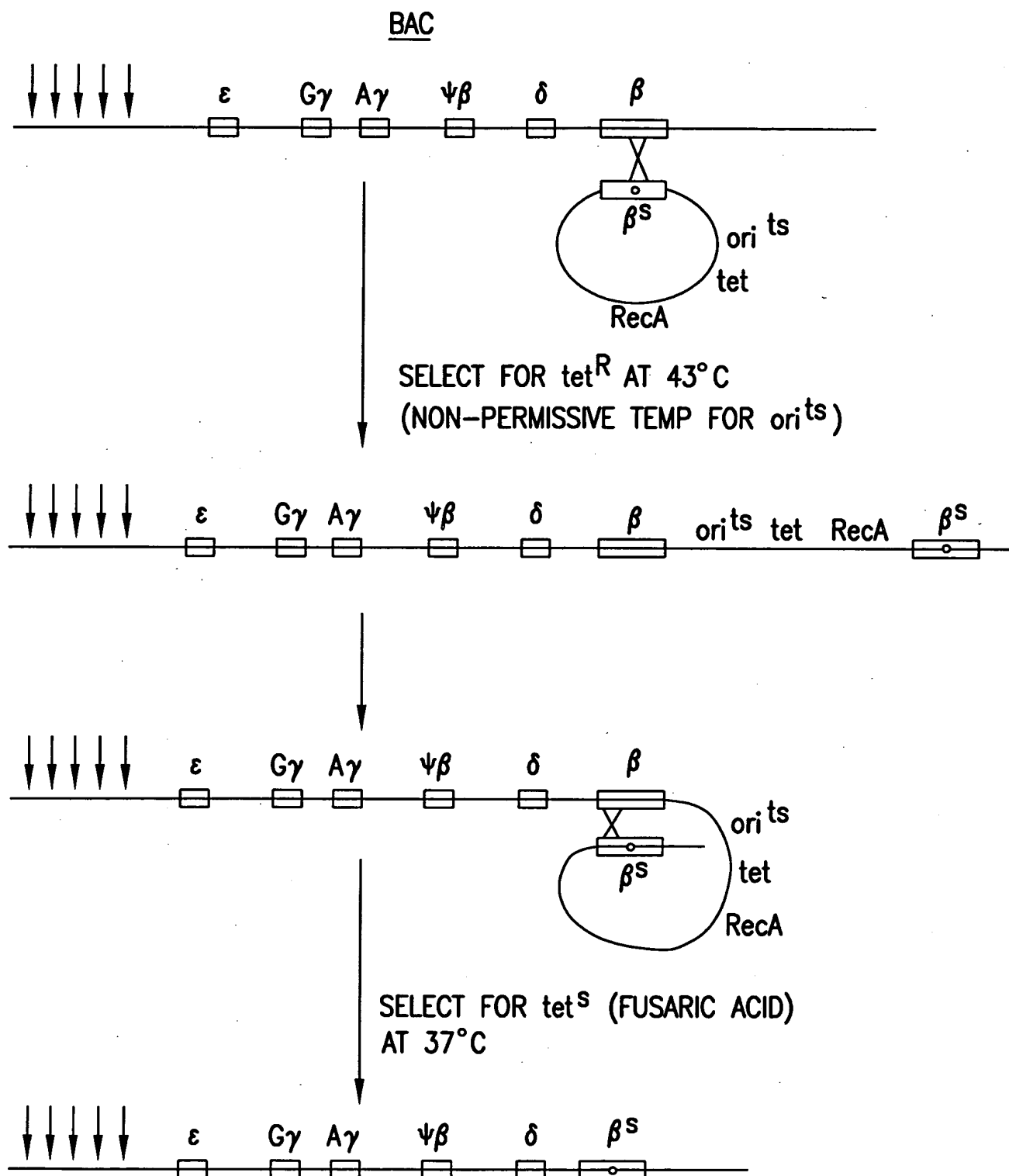
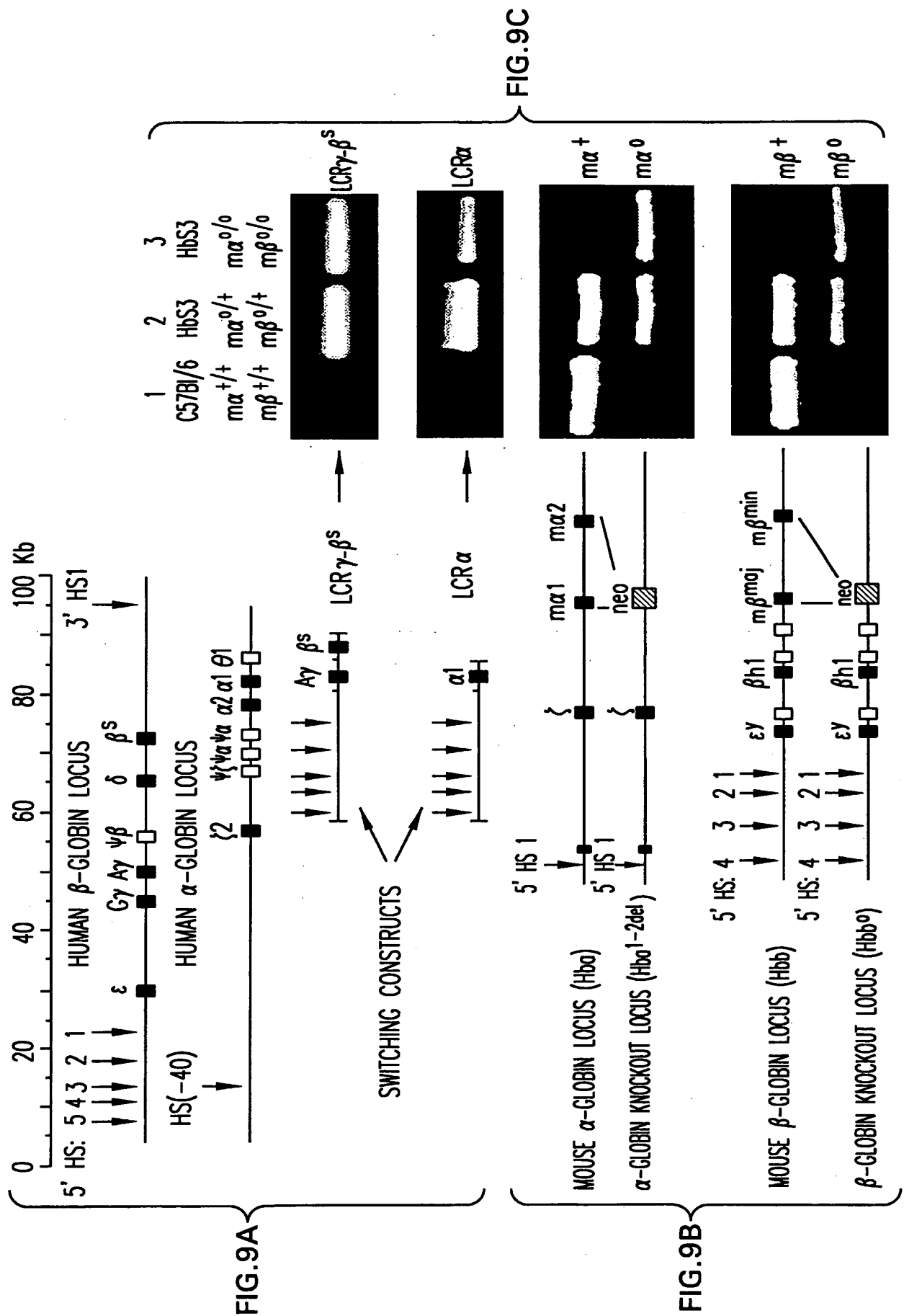


FIG.8



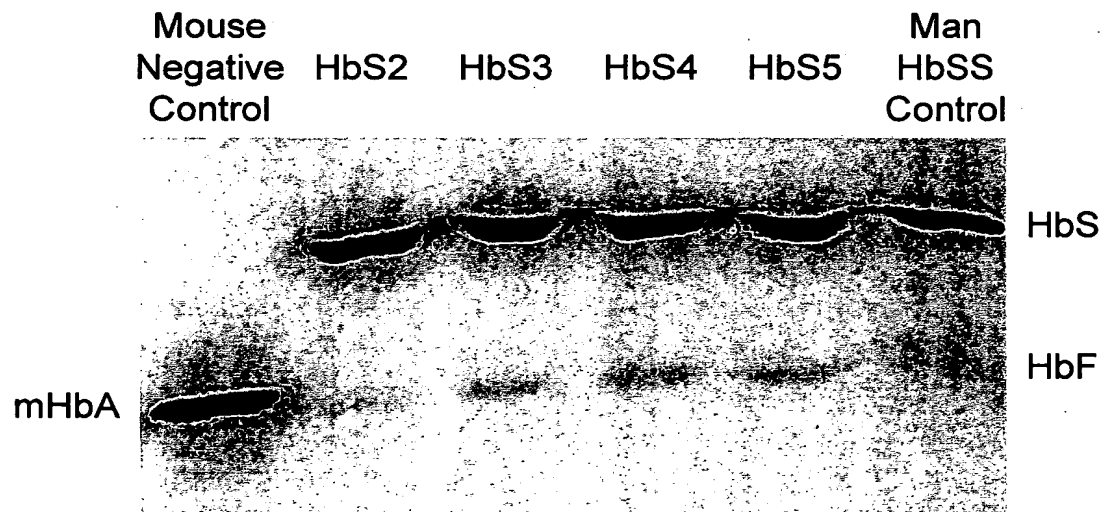


FIG.10

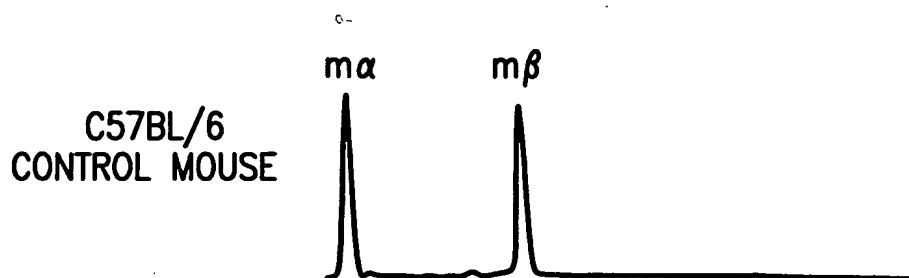


FIG. 11A

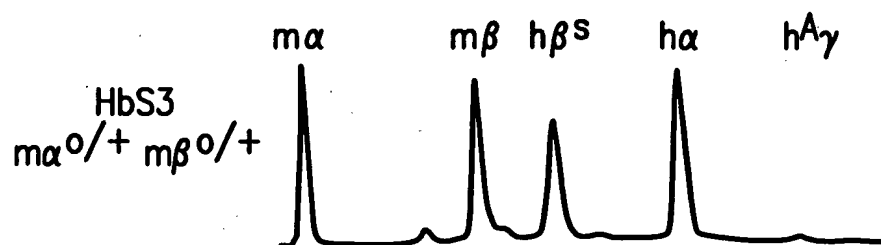


FIG. 11B

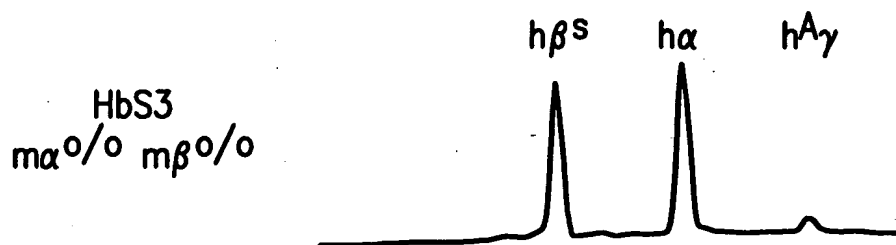


FIG. 11C

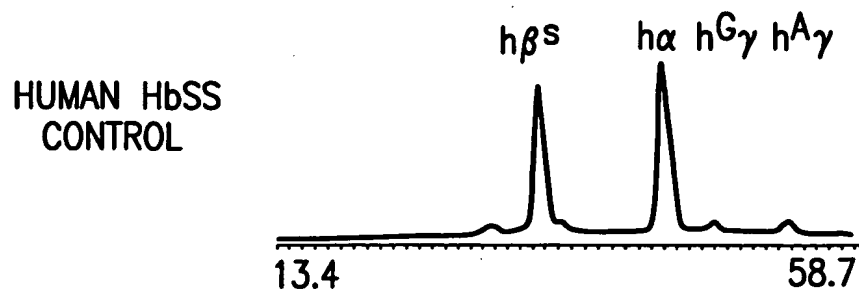


FIG. 11D

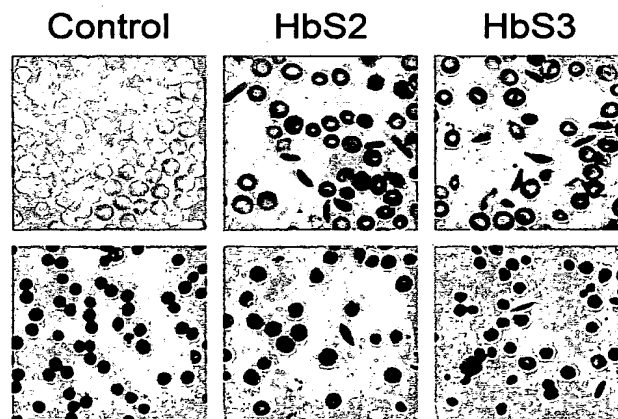


FIG.12

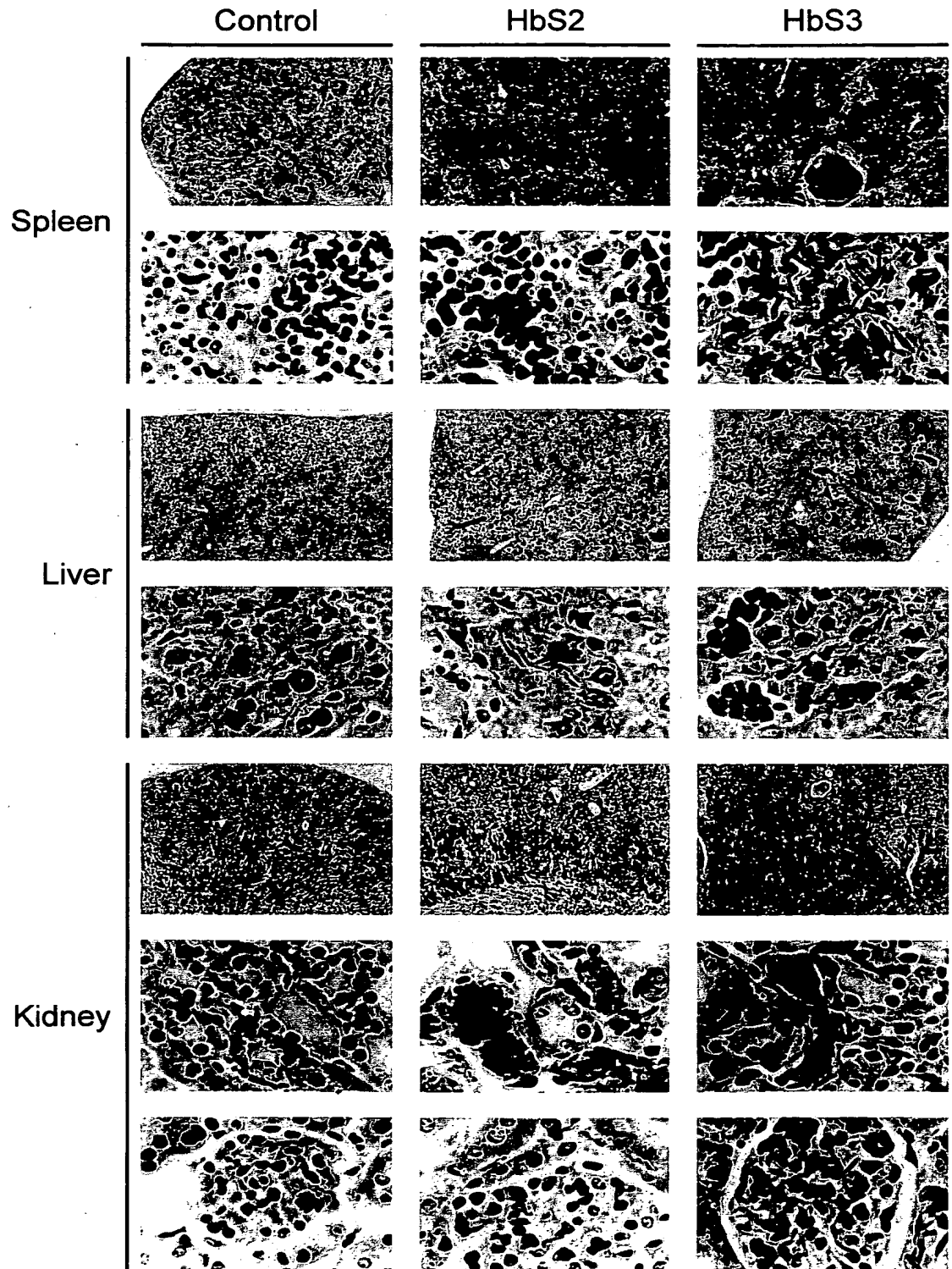


FIG.13



FIG.14A



FIG.14B

HEMOGLOBIN SWITCHING IN HbA MICE

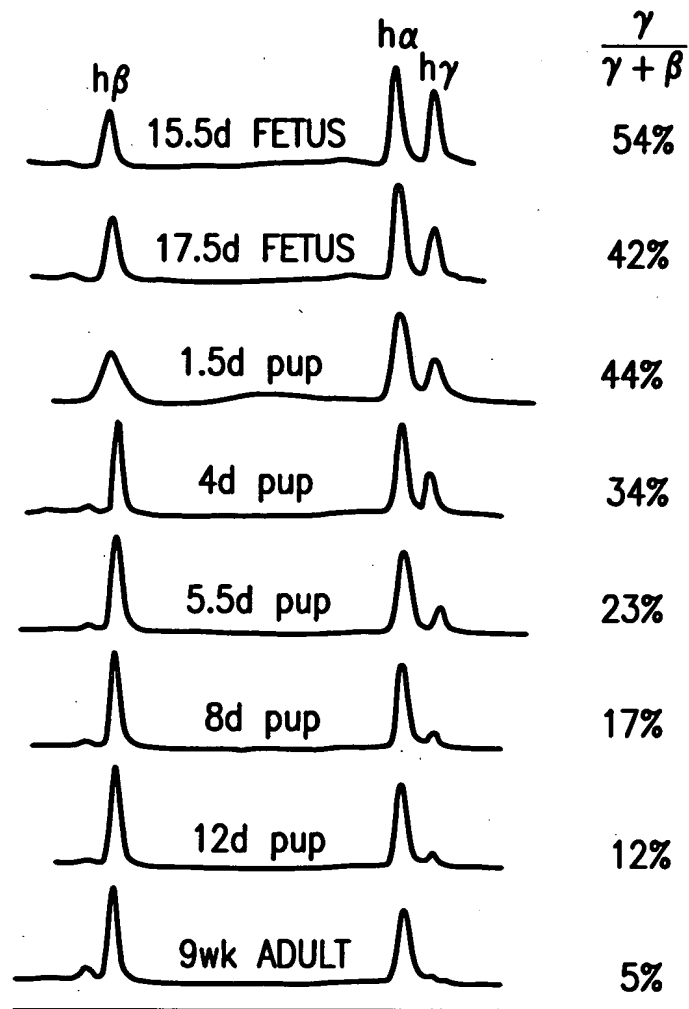


FIG. 15

INCREASING HbF LEVELS IN HbS MICE:
CROSSING THE HbS 3 AND HbF LINES

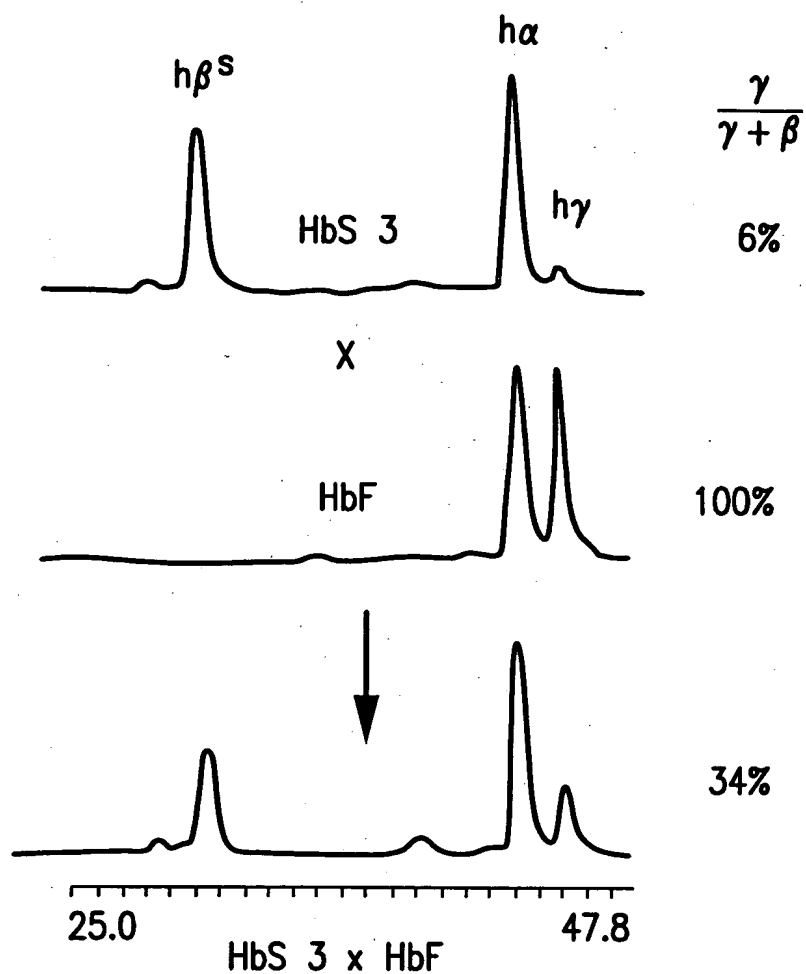


FIG. 16